

Coleoptera from northern California. [19] 24: 222-223. **Pic, M.**—Addenda et corrigenda du Coleopterorum Catalogus. [33] 69: 205-208. \***Reichensperger, A.**—Neue ameisengäste und ein neuer termitengast (Pauss. Hist. Staph.). (S). [2] 25: 132-137.

**HYMENOPTERA.**—**Andrews, E. A.**—The mound-building ant, *Formica exsectoides*, associated with tree-hoppers. [7] 22: 369-391, ill. **Bequaert, J.**—*Podalonia violaceipennis* (Lepeletier). A dimorphic fossorial wasp. [19] 24: 220-221. \***Borgmeier, T.**—Zur kenntnis der brasilianischen ameisen. [EOS] 5: 195-214, ill. **Crevecoeur, F. F.**—Additions to the list of Kansas Hymenoptera. [Trans. Kansas Acad. Sci.] 30: 385-388. \***Flanders, S. E.**—A new codling moth parasite. (*Calliephialtes* sp.) [55] 6: 32. **Howard, L. O.**—*Aphelinus mali* and its travels. [7] 22: 341-368. **Kostoff & Kendall.**—Studies on the structure and development of certain cynipid galls. [92] 56: 402-458, ill. **Lubbock, J.**—Ants, bees and wasps. A record of observations on the habits of the social Hymenoptera. 377 pp., ill. \***Smith, M. R.**—Descriptions of five new North American ants, with biological notes. [7] 22: 543-551, ill. \***Timberlake, P. H.**—A new species of the Encyrtid genus *Metaphycus* from Washington. [55] 6: 43-45. **Van Duzee, E. P.**—A rare wasp from Oregon. (*Odynerus margaretellus*). [55] 6: 47.

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A MANUAL OF EXTERNAL PARASITES, by HENRY ELLSWORTH EWING, 225 pages, 96 text figures, Charles C. Thomas, Springfield, Ill., 1929.

Here is a book for which a word of sincere praise is due to the publisher and printer. It is a most attractive little volume, beautifully bound, and beautifully printed. It would form a creditable addition even to a library the function of which is to please the esthetic sense rather than to fulfill the severely utilitarian needs of reference.

But with the contents the case is somewhat otherwise. Were the reviewer to attempt a single word summary—after the fashion of the “wise-cracking” journals—he might be tempted to light upon the word “feeble” as his choice. The book simply falls short of being what it should be. It is an attempt to fill a very obvious gap in our entomological literature. From the reviewer's point of view it rattles about somewhat in the gap, but still it performs its intended function with a certain measure of efficiency. To the entomologist who knows nothing of the ectoparasitic Arthropoda it will be extremely useful, for it brings within the compass of a single volume information that

otherwise is scattered so widely as to be almost unavailable to the general student. And as there are in all the world scarcely more than a dozen entomologists who are especially informed concerning the fields that the book covers, it is evident that there is a definite advance with its publication. Nevertheless, from the point of view of one of that dozen, it cannot be regarded as constituting an especially impressive contribution to the literature of the ectoparasites.

In the first place, the title is misleading. It is presented without qualifications or reservations as "A Manual of External Parasites." The selection of a title is almost always a difficult matter and it is perhaps to that difficulty that the discrepancy between promise and performance is to be charged. But the discrepancy is large. The ectoparasitic Arthropoda come from a surprisingly large number of widely separated groups. There are the Acarina of the Arachnida; the two families Cimicidae and Polyctenidae of the Hemiptera; the so-called sub-order Pupipara of the Diptera with its three families Hippoboscidae, Streblidae and Nycteribiidae, and the curious Braulidae of uncertain position; there are the truly parasitic beetles of the families Leptinidae and Platypsyllidae and a number of presumably parasitic Staphylinidae; there is *Hemimerus* of the Dermoptera; there are the three completely parasitic orders Mallophaga, Anoplura and Siphonaptera; there are even one or two putatively parasitic moths. But of this assemblage only the Acarina, Anoplura, Mallophaga, and Siphonaptera are treated in this volume, in spite of the inclusive title.

It is true that the groups dealt with include in numbers of species probably more than ninety-five percent of the ectoparasites, but the remaining groups are biologically just as important and the knowledge of them among entomologists is even more limited. They should at least have been accorded some measure of attention.

In its illustrations the volume clings all too closely to the standard from which the writers of our various text books of parasitology seem utterly unable to escape. True it does not go back quite as far for any of its illustrations as some other recent texts have done. It at least does not utilize Denny's picture of the crab louse which was *first* published in 1842! But the crudeness and inaccuracy of the figure purporting to illustrate *Menopon gallinae* (Fig. 60)—in which the palpi are represented as arising from the dorsal side of the head and the legs appear as unsegmented horns—represent but a slight improvement. It is equalled only by the morphologically amazing drawings of fleas (Figs. 93, 94) in which the abdominal

segments are represented as uninterrupted rings. Still, for these last two drawings the author has available the precedent set by one of the world's most eminent entomologists in one of the most recent comprehensive text books. Figure 59 is almost as bad, Figure 70 is little more than a blot, and numerous other figures, such as those from Lugger, are out of place in a modern book. On the other hand, Figures 86 and 89, representing details of fleas, are really excellent, while others are merely technically mediocre. Most important of all, however, is the fact that the number of figures which actually show much of what can really be considered as the morphology of the various groups is exceedingly few. There is practically no reason to suppose from the figures that any insect possesses structures on the ventral side of the body.

Something over one-third of the volume is devoted to the Acarina, and this portion of the volume is far more adequately developed and illustrated than is the remainder. This is but natural, since it covers the field in which the author is best qualified, his knowledge of the other groups being but a comparatively recent development. It may be assumed that the information contained is reliable and reasonably extensive. Certain omissions may be noted, however. Under the genus *Halarachne* (p. 18) it is said that but two North American species are known. Four have been recorded. Also the genus *Myialges*, regarded by Trouessart as constituting a subfamily of the Sarcoptidae, first described many years ago and re-described more than a year ago by the present writer is not mentioned.

Under the Mallophaga the writer has done about as well as can be hoped for at the present time in compiling keys and arranging the groups. The order is at present in systematic confusion, due to the recognition of the inadequacy of the older classification but lacking any broad general studies that can serve as the basis for a better rearrangement. Ewing has seen fit to name several new genera, especially in the Trichodectidae. Until a careful general review of the Trichodectidae has been made it is doubtful that such a procedure really does anything more than complicate matters for some of these genera are of most dubious value. There is no evidence in the present work that such careful preliminary studies have been made.

Under the Anoplura, a group with which the reviewer is especially familiar, Ewing has essayed not only to name a number of new genera but to extend the general classification as well, again without convincing results. The general classification of the group waits upon the completion of compre-

hensive studies and until such have been accomplished nothing is to be gained by the naming of new subfamilies when even the present so-called families are of doubtful significance. There is no evidence in the present paper or in any of Ewing's few other short papers on the group that he has made such studies and there is no reason to suppose that his rearrangement is any special improvement over the present and evidently inadequate system. His inclusion of the genera *Phthirpediculus* and *Leumorphthirus* in the family Pediculidae is a case in point. He has evidently been influenced more by considerations of host relationship than by a knowledge of the structure of the insects.

The composition of genera is of course a matter of opinion and in our opinions the author and the reviewer diverge most sharply. Ewing indicates (preface) an expectation of criticism for publishing new genera in a volume such as this. The criticism is due rather for naming some of these genera in any publication. The genus *Enderleinellus*, which with its approximately twenty species all from Sciuridae, all of a common facies, all agreeing in essential characters and thus forming a compact, homogeneous and biologically significant group, appears to the reviewer to constitute a real genus—if there be such a thing at all—is split by Ewing into five genera that actually are based upon nothing more than minor departures from the general type.

For the genus *Ahaematopinus*, here named as new, there appears to be no valid reason and to place with its type species, *Ncohaematopinus inornatus* Kellogg and Ferris, such species as *Polyplax insulsa* Ferris and *P. oxyrrhynchus* Cummings argues a lack of knowledge of the group.

The genus *Ctenura*, with the single species *Hoplopleura pectinata* Cummings, is an example of the forcible wrenching of a species from the midst of its friends and relatives to imprison it in solitary confinement because it departs slightly from the conventions. The case of *Hoplopleura trispinosa* Kellogg and Ferris, which is made the type of *Euhoplopleura*, is an even more marked example of the same thing.

*Hoplopleura cryptica* Ferris is made the type of the genus *Ctenoplura* but its very evident relatives, *H. neumanni* Fahrenholz, *H. biseriata* Ferris and *H. veprecula* Ferris are left behind. The earlier separation by Ewing of the genus *Pterophthirus* for the two species *Hoplopleura audax* Ferris and *H. alata* Ferris, and which was the picking up of a crumb dropped by the reviewer, has some justification but there is less for the naming of the genus *Ferrisella* with *H. ochotonae* Ferris as

type and *H. disgrega* Ferris, *H. malaysiana* Ferris and *H. emarginata* Ferris for its companions. Once more the reviewer is impelled tearfully to reject the honor implied by the incorporation of his cognomen in a generic name.

Why, in view of the naming of these genera, other species were left undisturbed is difficult to understand. At least a half dozen more genera of equal value could have been brought down by the "shot gun" methods employed and added to the bag. Why were *Nechamatopinus heliosciuri* Cummings, *Polyplax auricularis* Kellogg and Ferris, *P. praecisa* Neumann and *Hoplopleura bidentata* (Neumann) at least not seized upon as types of new genera? They are offered to the attention of the writer of the "Manual of External Parasites" together with the classical advice "*Non es bonum micam alterii legere.*"

The section on the very important order Siphonaptera consists chiefly of a compilation of keys to the genera and a brief discussion of a few of the important genera. This should be especially useful as the generic keys to this order are at present much scattered. But three new genera are here named. G. F. FERRIS.

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## Doings of Societies.

### The Rocky Mountain Conference of Entomologists.

The sixth annual Rocky Mountain Conference of Entomologists was held in Pingree Park, August 19 to 24, 1929, inclusive. A total of 64, including members of the families, registered at camp. Those directly interested in Entomology were present as follows: R. L. Shotwell, K. C. Sullivan, G. A. Dean, L. Johnson, F. B. Paddock, H. G. Butler, Donald A. Wilbur, Miriam A. Palmer, J. G. Sanders, Frank T. Cowan, C. P. Gillette, Sam C. McCampbell, Geo. M. List, Louis G. Davis, C. C. Hamilton, E. R. Bliss, Carl A. Bjurman, R. G. Richmond, Horace G. Smith, Leo J. Doering, L. M. Gates, L. B. Daniels, Geo. I. Reeves and C. R. Jones.

A total of ten sessions were held during the week for the presentation of papers. The following is a list of the subjects presented:

**Orthoptera**—Grasshopper Investigations, R. L. Shotwell; The Mormon Cricket Control Campaign in Colorado, F. T. Cowan.

**Coleoptera**—The Alfalfa Weevil in Colorado, J. H. Newton; The Clover Root Curculio on Alfalfa in Kansas, Donald A. Wilbur.